



CD-70 Utility User Manual

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1 PREFACE

The Virtual Line Display Utility helps to prepare Partner Tech CD-70 as a customer display and/or a digital signage display. The CD-70 Virtual Line Display Utility commands are identical to that on CD-7220 so customers can adopt existing commands directly on CD-70 without re-designing the software again.

2 SPECIFICATION

Model Name	CD-70
Panel Resolution	800x480
Panel Size	7 inch
Display Mode	20x2 mode: Text, Photo, Video
	20x6 mode: Text only

3 Utility installation

3.1 Installation Guide

Find the appropriate utility for different OS; then please follow the installation process like the snapshots below:



Fig. 1

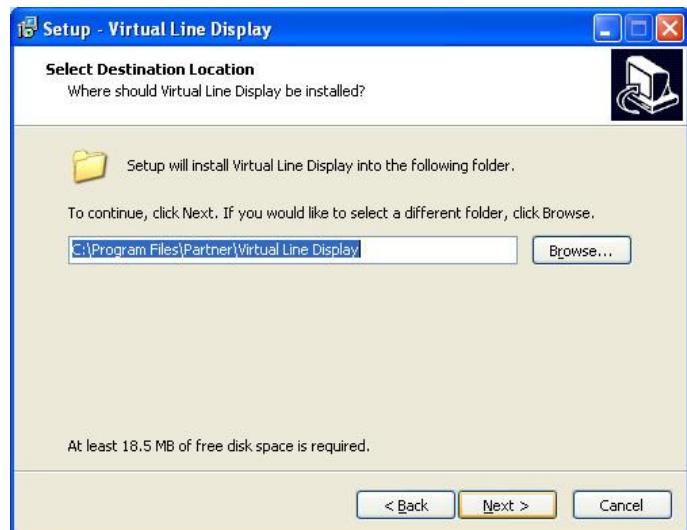


Fig. 2

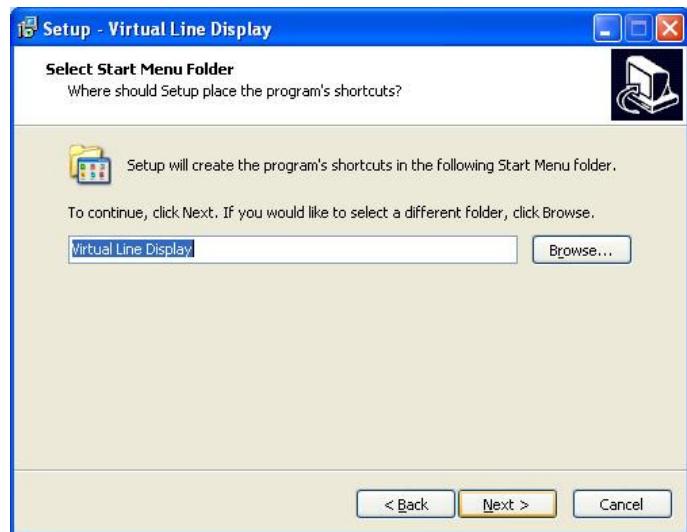


Fig. 3

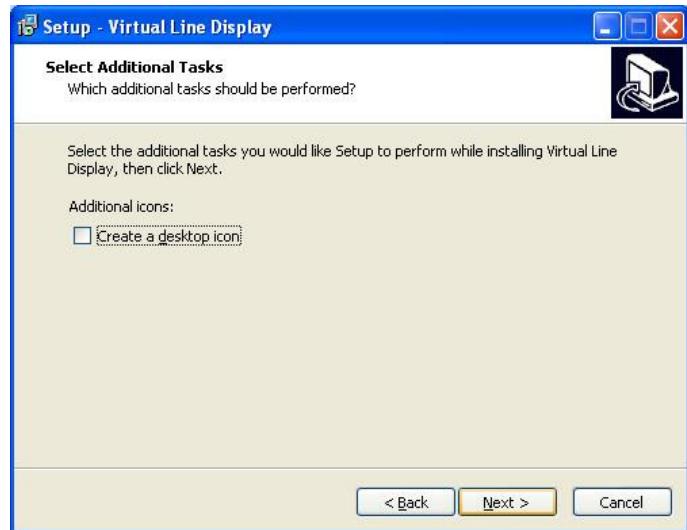


Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

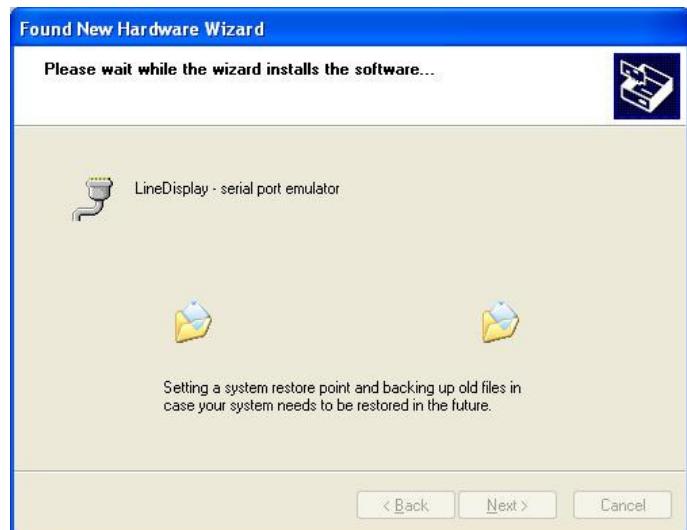


Fig. 11



Fig. 12

3.2 Initial Comport Setup Guide

The default Virtual Line Display Utility will install the driver that occupies both COM 40 and COM 50 ports. Users can change the COM port to any available COM PORT by using the Line Display Tools. Please follow below steps to change the COM port:

- A. Find “Virtual Line Display” from Windows start menu, and choose the “LineDisplay_Tools” as shown on the Fig. 13.

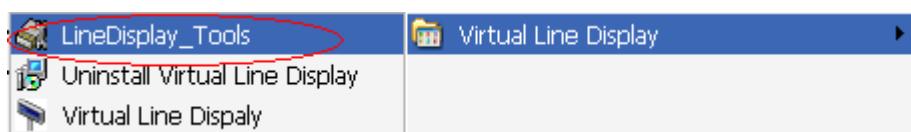


Fig. 13

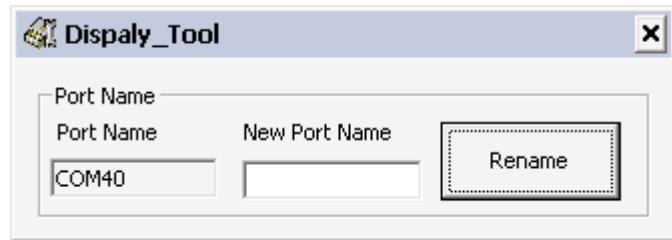


Fig. 14

B. Typed the new COM Port Number (For example COM2) into “New Port Name” and click on the “Rename” button to change the COM port. The pop up message will shown like Fig. 15, please choose “Continue” if it correct, then another pop-up message as shown on Fig. 16, please click “OK” to finish the comport change process. After clicking “OK”, you can choose if you want to reboot the system immediately or later. (Note: Must restart the system for the change COM port to work properly.)



Fig. 15



Fig. 16

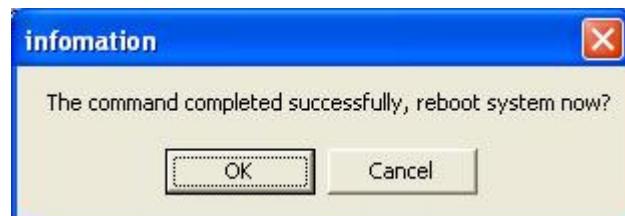


Fig. 17

4 Utility Guide

A. To start the utility, please find “Virtual Line Display” from Windows start menu, then select the “Virtual Line Display”.

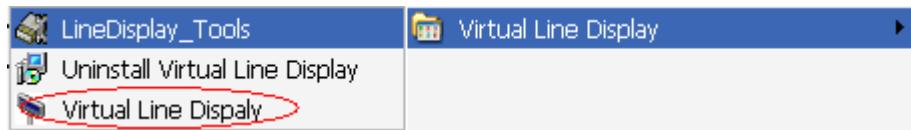


Fig. 18

B. The default setting of Virtual Line Display Utility is shown as the Fig. 19. (Text mode 20x2, Display style 9, image transition time 3 seconds)

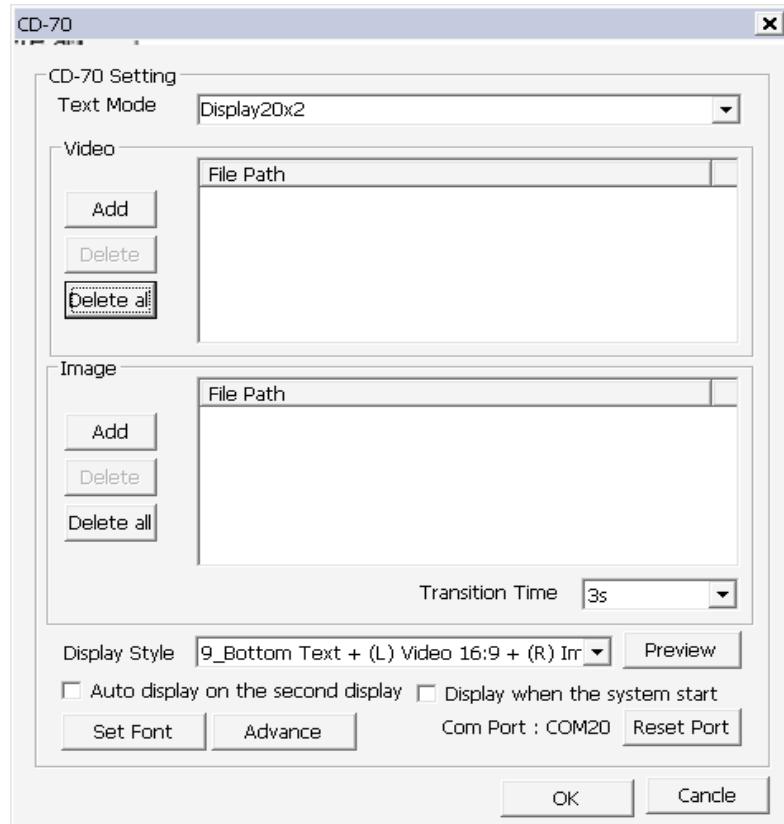


Fig. 19

C. You can find a miniature icon of the utility on the task bar, like Fig.20. By double clicking the icon, the utility (Fig. 19) will pop up.



Fig. 20

D. You also access the simple menu by the right click on the mouse like shown on Fig. 21.

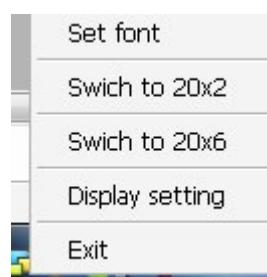


Fig. 21

4.1 Text Mode

Text Mode has “Display 20x2” and “Display 20x6” modes

A. Display 20x2: Choose this mode will have 2 lines of 20 characters per line display.

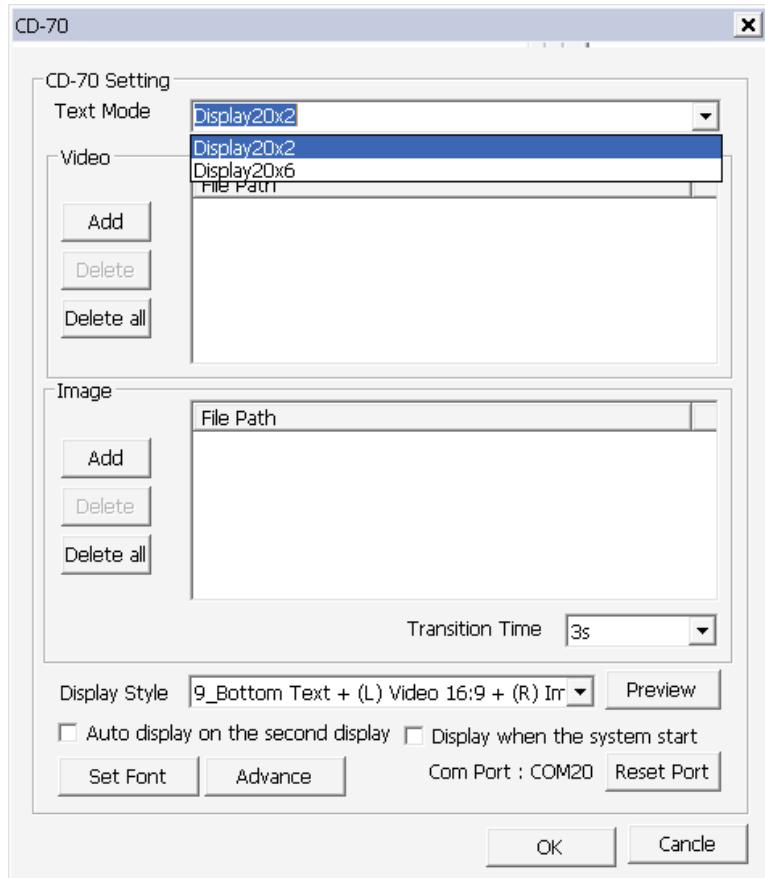


Fig. 22

B. Display 20x6: Choose this mode will have 6 lines of 20 characters per line display.

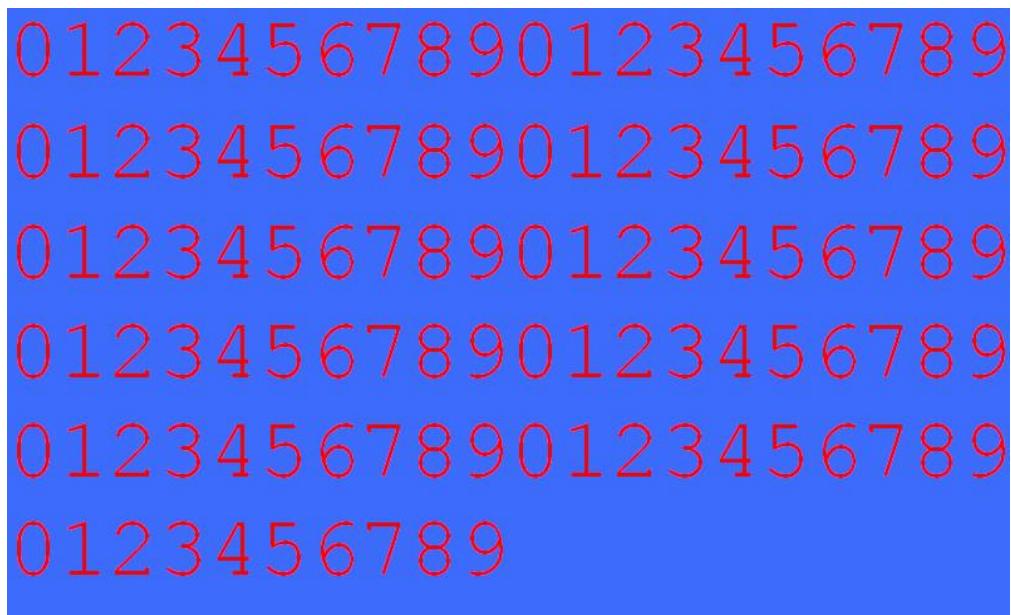


Fig. 23

4.2 Video

You can manage the videos files through add, delete, or delete all as shown on Fig. 24.

The default supported video format is shown below:

A. Default video format supported for Windows XP is mpeg/wav/avi. Video format depends on the codec installed on Windows Media Player. If your video format is not supported, you can upgrade the decoder/codec from the following 3rd party link:

http://download.cnet.com/Media-Player-Codec-Pack/3000-13632_4-10749065.html?tag=dropDownForm;productListing;pop

B. Default video format supported for Windows 7 is

rmvb/avi/mkv/mov/mpg/mp3/mp4/mpa/wma/flv/xv/ts/divx/xvid/ogg/ogm.

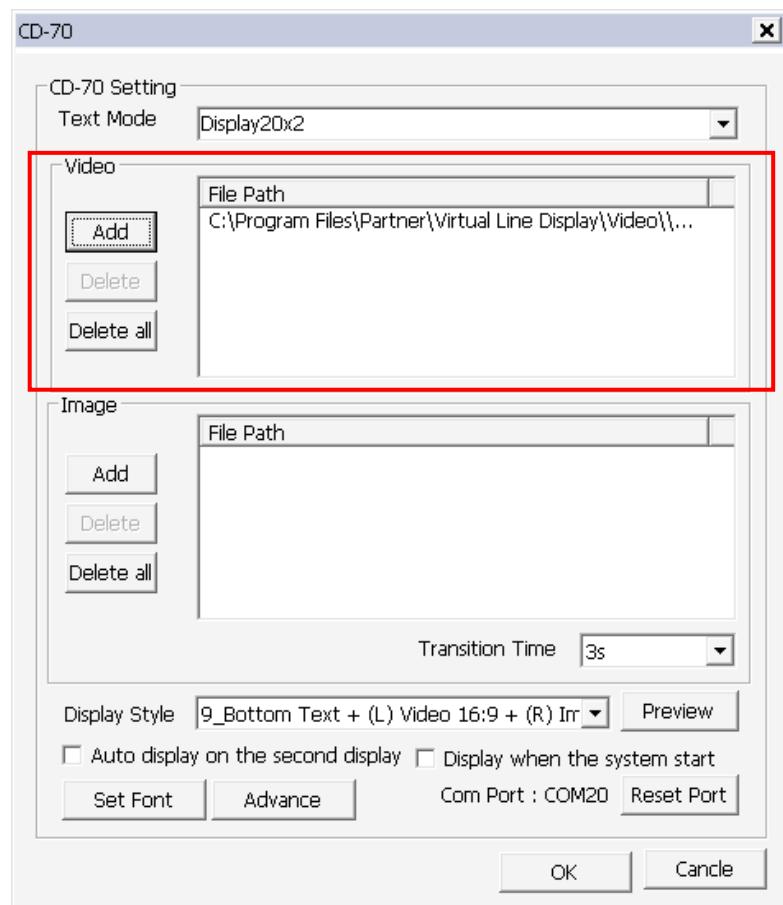


Fig. 24

4.3 Image (Still Photo)

You can manage the image files through add, delete, or delete all as shown on Fig. 25 marked in red square.

A. Transition Time: Time displayed for each image

B. The image file supported are Bmp、jpg、png、emf、tiff、exif、gif

C. To avoid image distortion, the suggested image ratio are shows as below:

- Display Style 2 : 800 x 480
- Display Style 3~4 : 800 x 364
- Display Style 7~10 : 352 x 221
- Display Style 11~14 : 367 x 343

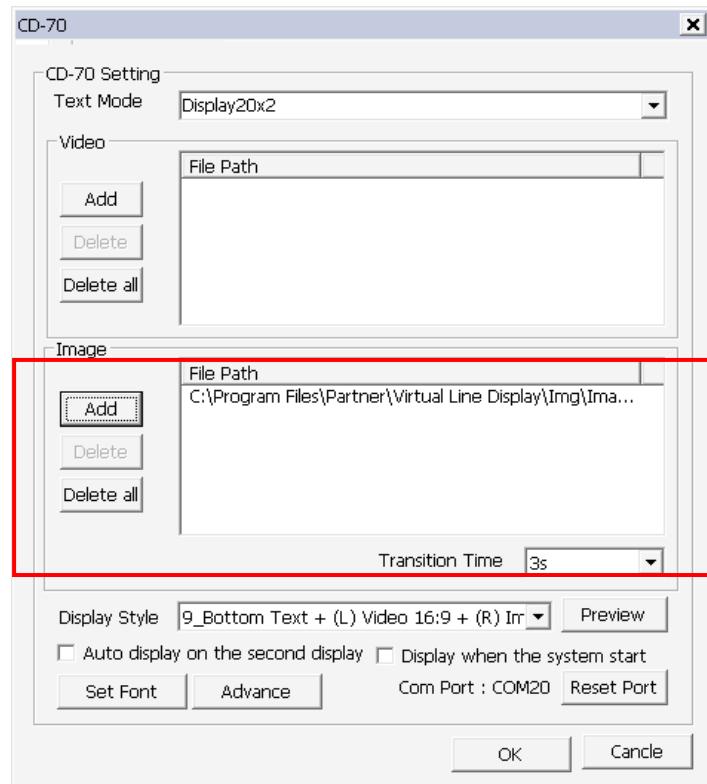


Fig. 25

4.4 Display Style

Display Style has 14 styles as shown on Table 1. You can choose the style on Fig. 26 menu. By clicking “Preview”, you can preview the display setting result.

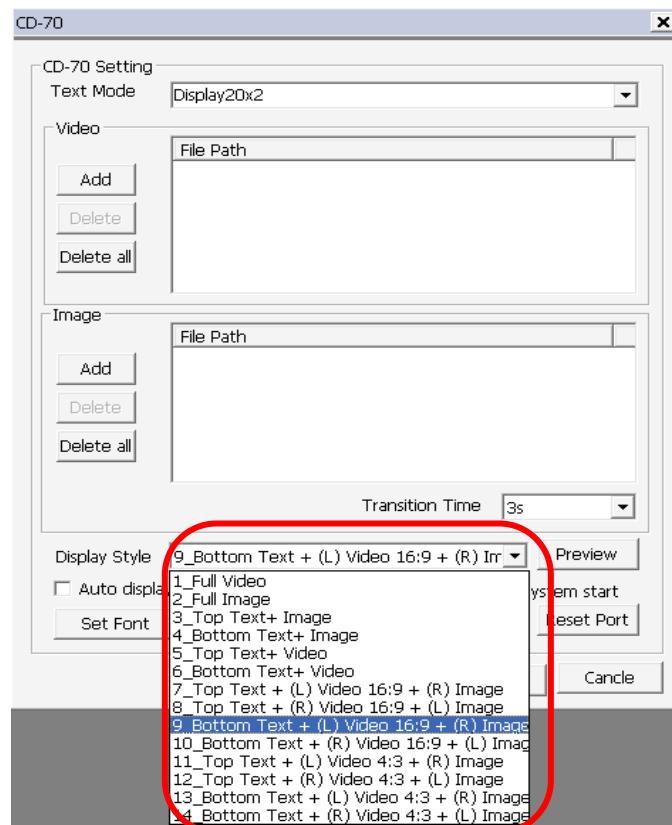


Fig. 26

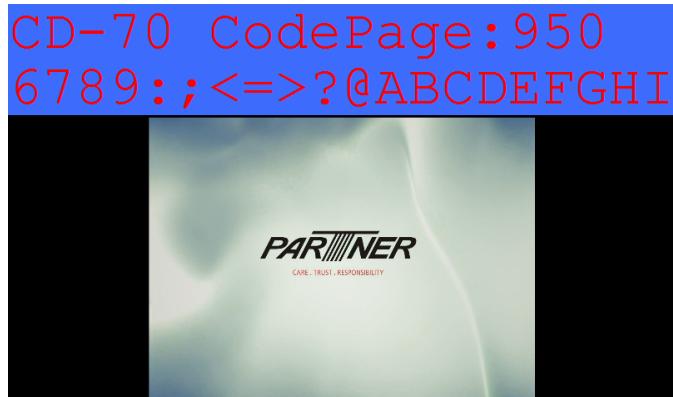


Fig. 27

Table 1. Display Style Layout List

1. Full Video	2. Full Image
	<p><i>with global vision ...we make it POSSible</i></p> <p>PARTNER</p>
3. Top Text + Image	4. Bottom Text + Image
<p>COMMAND TYPE:7 456789:;<=>?@ABCDEFGHI</p> <p><i>with global vision ...we make it POSSible</i></p>	<p><i>with global vision ...we make it POSSible</i></p> <p>PARTNER</p> <p>COMMAND TYPE:7 456789:;<=>?@ABCDEFGHI</p>

5. Top Text + Video



6. Bottom Text + Video



7. Top Text + (L) Video 16:9 + (R) Image



8. Top Text + (R) Video 16:9 + (L) Image



9. Bottom Text + (L) Video 16:9 + (R) Image



10. Bottom Text + (R) Video 16:9 + (L) Image



11. Top Text + (L) Video 4:3 + (R) Image



12. Top Text + (R) Video 4:3 + (L) Image



13. Bottom Text + (L) Video 4:3 + (R) Image



CD-70 CodePage:950
6789:;<=>?@ABCDEFGHI

14. Bottom Text + (R) Video 4:3 + (L) Image



CD-70 CodePage:950
6789:;<=>?@ABCDEFGHI

4.5 Auto display on the second display

Choose this setting, the display screen will play on CD-70 by this default setting.

4.6 Display when the system start

Choose this setting , the video and image will automatically starts when OS starts up.

4.7 Set Font

Users can set up the words color, font and size by “Set Font” icon.

The default setting is:

- Font: Courier New
- Font Style: Regular
- Font size: 50
- Font color: red

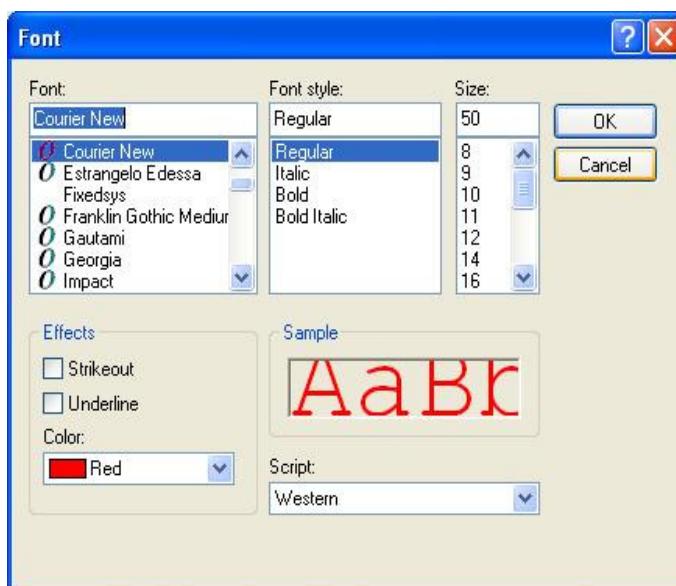


Fig. 28

4.8 Advance

You can set demo message and background image by click on “Advance” icon. The suggestion image ratio for each line is 800x65. If the image is bigger than this suggested image ratio, the background image will cut the image to 800x65 from left to right and from top to bottom.

A. Text Mode: Display 20x2 mode

You can only change Line 1 and Line 2 Demo message and Background image like Fig. 29

B. Text Mode: Display 20x6 mode

You may change all 6 Lines of Demo message and Background image like Fig. 30

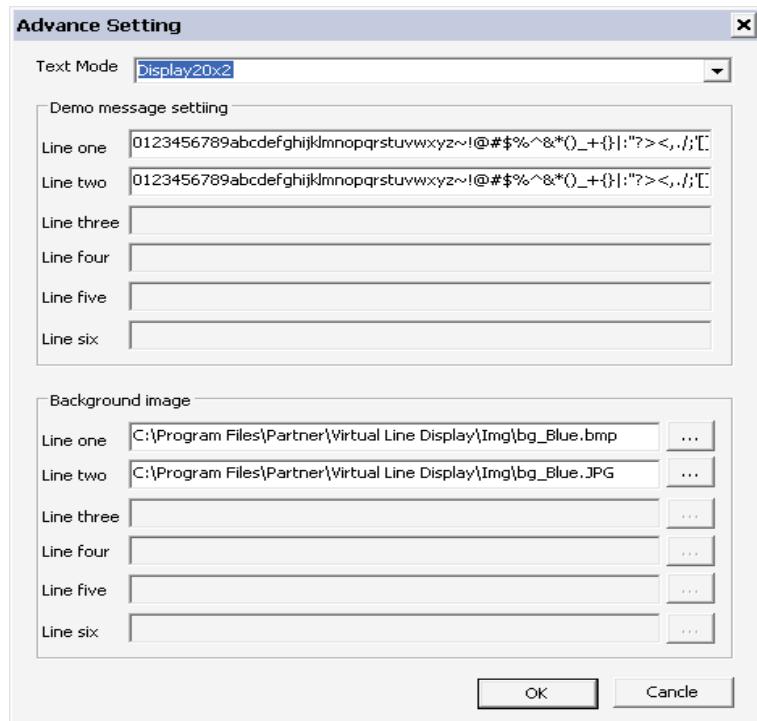


Fig. 29

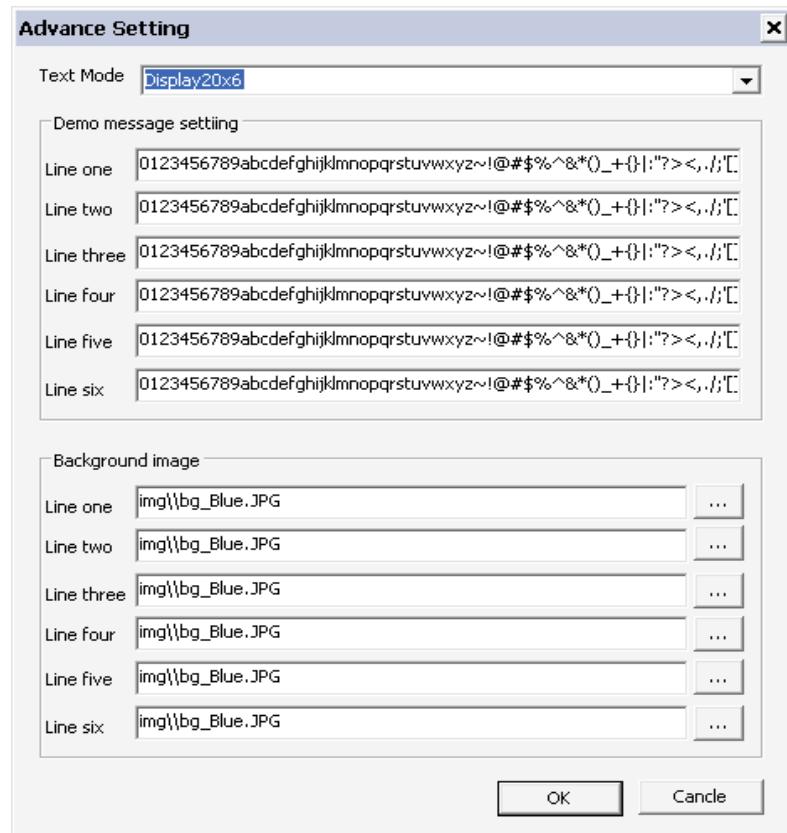


Fig. 30

4.9 Reset Port

“Reset Port” will reset the COM Port back to initial default. Please follow the section 3.2 for initial COM port setup.

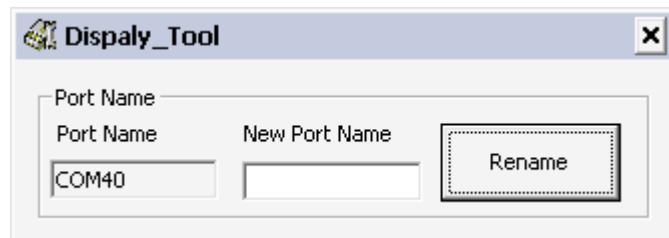


Fig. 31

4.10 OK

When you click on the “OK” icon, the setting will be saved and the video & image will start showing on CD-70.

4.11 Exit Virtual Line Display Utility

Please find the icon on task menu bar like Fig. 32. Click the mouse right key, the quick menu will shown like Fig. 33. Please choose “Exit” to quit Virtual Line Display Utility.



Fig. 32

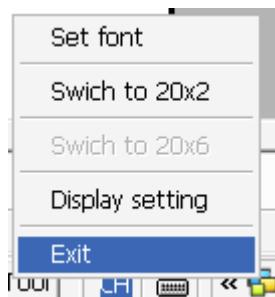


Fig. 33

5 Uninstall the Virtual Line Display Utility

A. Click on “Virtual Line Display” on the Start menu; then select the “Uninstall Virtual Line Display” process to uninstall this utility.



Fig. 34

B. Follow the uninstall process as shown below:

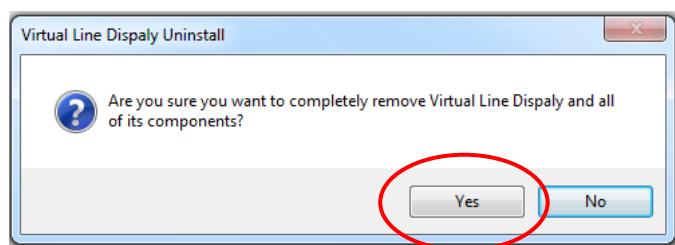


Fig. 35

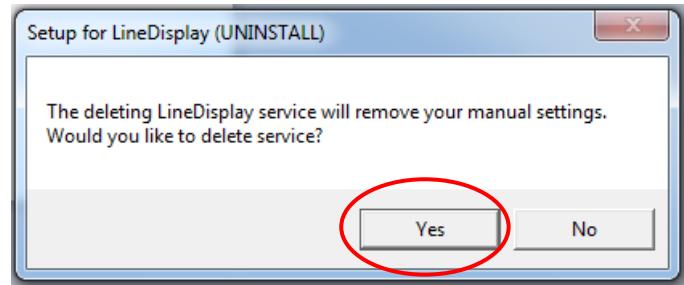


Fig. 36

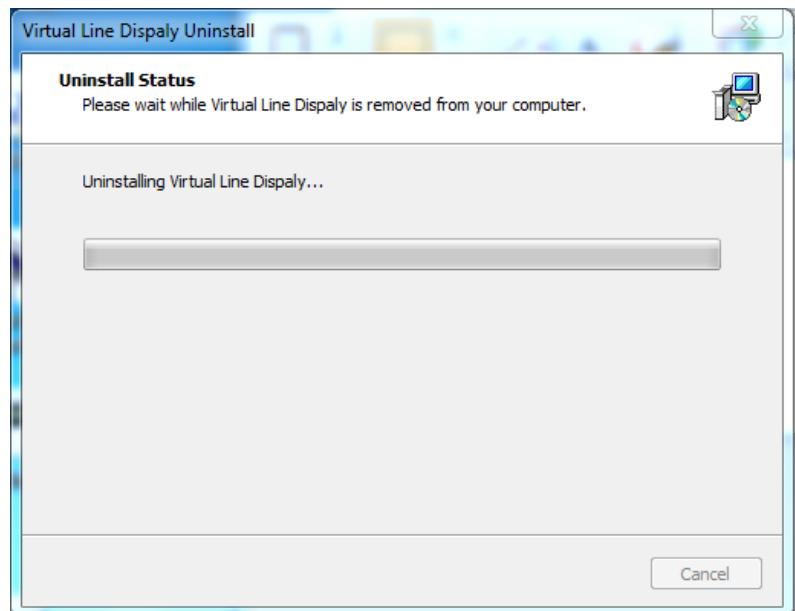


Fig. 37

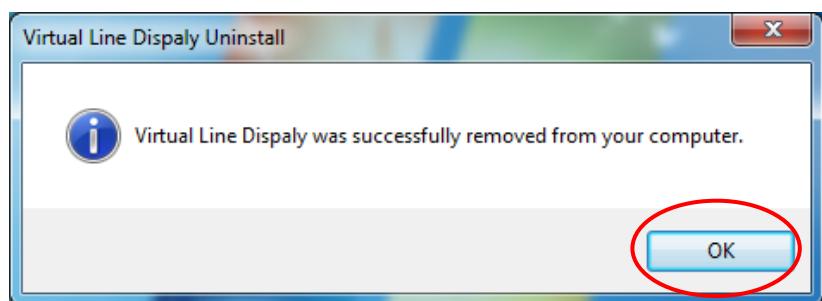


Fig. 38

APPENDIX

1 Commands

1.1 SYSTEM COMMAND DETAILS

1.1.1 Command type select

STX 05 C n ETX	Change command type
ASCII Format	STX 05 C n ETX
Dec. Format	[02][05][67] n [03]
Hex. Format	[02h][05h][43h] n [03h] 30h ≤ n ≤ 37h
Description	This command will change the command type and initialize the display. The display emulation mode is based on CD5220II/ESC POS/ADM787/ADM788/ UTC/AEDEX/EMAX mode. The setting function will be saved to EEPROM.

n	Command type	n	Command type
30h	DSP800	34h	AEDEX
31h	ESC/POS	35h	UTC/P
32h	ADM788	36h	UTC/S
33h	ADM787	37h	CD5220
		38h	CD7220

1.1.2 Reset EEPROM

STX 05 07 n ETX	Reset EEPROM
ASCII Format	STX 05 07 n ETX
Dec. Format	[02][05][07][n][03]
Hex. Format	[02h][05h][07h][n][03h]
Description	This command will reset the content of EEPROM (eg. demo scroll data, user-define character, baud rate setting.) n=31h clear all EEPROM contents n=32h clear upper line data message n=33h clear lower line data message

1.1.3 Save data for demo display

STX 05 L n m	Save demo message to EEPROM
ETX	
ASCII Format	STX 05 L n m ETX
Dec. Format	[02][05][76] n m [03]
Hex. Format	[02h][05h][4Ch] n m [03h]
Description	Save demo message for upper line and bottom line n = 31h save data message for upper line n = 32h save data message for lower line

m = data message; the maximum data character is under 200

1.1.4 Run Demo message

STX 05 D 08 ETX	Run demo message
ASCII Format	STX 05 D 08 ETX
Dec. Format	[02][05][68][08][03]
Hex. Format	[02h][05h][44h][08][03h]
Description	Run demo message for the display

1.2 CD 5220-II STAND AND MODE COMMAND

Command	Code description (hex)	Function description
ESC DC1	1B 11	overwrite mode
ESC DC2	1B 12	vertical scroll mode
ESC DC3	1B 13	horizontal scroll mode
ESC Q ACR	1B 51 41 [n]x20 0D	set the string display mode, write string to upper line
ESC Q BCR	1B 51 42 [n]x20 0D	set the string display mode, write string to lower line
ESC Q DCR	1B 51 44 [n]x20 0D	upper line message scroll continuously
ESC [D	1B 5B 44	move cursor left
BS	08	move cursor left
ESC [C	1B 5B 43	move cursor right
HT	09	move cursor right
ESC [A	1B 5B 41	move cursor up
ESC [B	1B 5B 42	move cursor down
LF	0A	move cursor down
ESC [H	1B 5B 48	move cursor to home position
HOM	0B	move cursor to home position
ESC [L	1B 5B 4C	move cursor to left-most position
CR	0D	move cursor to left-most position
ESC [R	1B 5B 52	move cursor to right-most position
ESC [K	1B 5B 4B	move cursor to bottom position
ESC 1 x y	1B 6C x y 1≤x≤20,y=1,2	move cursor to specified position
ESC @	1B 40	initialize display

CLR	0C	clear display screen, and clear string mode
CAN	18	clear cursor line, and clear string mode

Table 6-1

(REMARK)

* While using command "ESC QA" or "ESC QB", these two commands can be used with terminal printer: TP2688 or TP3688

* While using command "ESC QA" or "ESC QB", other commands can not be used except when using command "CLR" or "CAN" to change operating mode.

* When using command "ESC QD", the upper line message will scroll continuously until a new command is received, it will then clear the upper line and move the cursor to the upper left-end position.

Set international font for CD7220/CD3220 (Table 6-2)

n	International font set	n	International font set
A	U.S.A.	N	NORWAY
G	GERMANY	W	SWEDEN
I	ITALY	D	DENMARK I
J	JAPAN	E	DENMARK II
U	U.K.	L	SLAVONIC
F	FRANCE	R	RUSSIA
S	SPAIN		reserved

Select code for CD7220/CD3220 (Table 6-3)

n	International code set
A	Compliance with ASCII code
J	Compliance with JIS code
R	Compliance with RUSSIA code
L	Compliance with SLAVONIC code
P	PC858
W	WPC1252

1.3 ADM787/788 command list

Command	Code description (hex)	Function description
CLR	0C	clear display
CR	0D	carriage return
SLE1	0E	clear upper line and move cursor to upper left-end position
SLE2	0F	clear bottom line and move cursor to bottom left-end position
DC0	10 n	set period to upper line, last n position $31h \leq n \leq 37h$
DC1	11 n	set line blinking, upper line n='1', bottom line n='2'
DC2	12 n	clear line blinking, upper line n='1', bottom line n='2'

Table 6-4

1.4 UTC standard mode command list

Command	Code description (hex)	Function description
BS	08	back space
HT	09	horizontal tab
LF	0A	line feed
CR	0D	carriage return
DC1	11	overwrite display mode

DC2	12	vertical scroll mode
ESC d	1B 64	change to UTC enhanced mode
US	1F	clear display

Table 6-5

1.5 UTC enhanced mode command list

Command	Code description (hex)	Function description
ESC u ACR	1B 75 41 [data x 40] 0D	upper line display
ESC u BCR	1B 75 42 [data x 40] 0D	bottom line display
ESC u DCR	1B 75 44 [data x 40] 0D	upper line message scroll continuously
ESC u ECR	1B 75 45 hh ':' mm 0D h,m='0'-'9'	display time
ESC u FCR	1B 75 46 [data x 40] 0D	upper line message scroll once
ESC u ICR	1B 75 49 [data x 40] 0D	two line display
ESC RS CR	1B 0F 0D	change to UTC standard mode

Table 6-6

1.6 AEDEX mode command list

Command	Code description (hex)	Function description
! # 1CR	21 23 31 [data x 40]	upper line display
! # 2CR	21 23 32 [data x 40]	bottom line display
! # 4CR	21 23 34 [data x 40]	upper line message scroll continuously
! # 5CR	21 23 35 hh ':' mm 0D h,m='0'-'9'	display time
! # 6CR	21 23 36 [data x 40]	upper line message scroll once pass
! # 9CR	21 23 39 [data x 40]	two line display

Table 6-7

1.7 DSP-800 mode command list

Command	Code description (hex)	Function descriptions
EOT SOH P n ETB	04 01 50 n 17 n=31h-58h	move cursor to specified position
EOT SOH C n m ETB	04 01 43 n m 17 31h≤n≤m≤58h	clear display range from <u>n</u> position to <u>m</u> position and move cursor to <u>n</u> position
EOT SOH F n ETB	04 01 46 n 17 00h≤n≤FFh	blink display screen
EOT SOH % ETB	04 01 25 17	initialize display

Table 6-8

(REMARK)

1.8 EPSON ESC/POS command list

Command	Code description(hex)	Function description
HT	09	move cursor right
BS	08	move cursor left
US LF	1F 0A	move cursor up
LF	0A	move cursor down
US CR	1F 0D	move cursor to right-end position
CR	0D	move cursor to left-end position
HOM	0B	move cursor to home position
US B	1F 42	move cursor to bottom position
US \$ x y	1F 24 x y $1 \leq x \leq 20, y=1,2$	move cursor to specified position
CLR	0C	clear display screen
CAN	18	clear cursor line
US E n	1F 45 n $0 \leq n \leq 255$	blink display screen
ESC @	1B 40	initialize display
US MD1	1F 01	specify overwrite mode
US MD2	1F 02	specify vertical scroll mode
US MD3	1F 03	specify horizontal scroll mode
ESC T h m	1B 54 h m , $0 \leq h \leq 23, 0 \leq m \leq 59$	display time

1.9 CD7220/CD3220 standard command details

ESC DC1 /Overwrite mode/

ASCII Format ESC DC1

Dec. Format [027][017]

Hex. Format [1Bh][11h]

Description Change the display mode to the overwrite mode. In this mode, the cursor will move rightward and begin from the upper left-end position. When the cursor reached the end of the upper line, the cursor will move down to the bottom left-end position to continue. When the cursor reached the end of the bottom line, it will move up to the upper left-end position and overwrite the previous characters.

ESC DC2 /Vertical scroll mode/

ASCII Format ESC DC2

Dec. Format [027][018]

Hex. Format [1Bh][12h]

Description Change the display mode to the vertical scroll mode. In this mode, the cursor will move rightward. The cursor will begin from the upper left-end position until it reached the end of the upper line, the cursor will then move down to the bottom left-end position to continue until it reached the end of the bottom line. Then, CD7220/CD3220 will scroll the bottom line up to replace the upper line. The bottom line will be cleared, and the cursor will continue to the first position of the bottom line.

ESC DC3 /Horizontal scroll mode/

ASCII Format ESC DC3

Dec. Format [027][019]

Hex. Format	[1Bh][13h]
Description	Change the display mode to the horizontal mode. In this mode, the extend of the cursor activity is bond by predefined range, limited to the upper line. (Please refer to Set or cancel window command), where the default window is the whole upper line. Once the cursor activity reached the end of the range, the characters that comes there after will push displayed characters forward from behind.

ESC Q A d1d2d3d4d5d6.....dn CR

ESC Q B d1d2d3d4d5d6.....dn CR /Set the string display mode, and write string to display/

ASCII Format ESC Q A d1d2d3d4d5d6...dn CR
 ESC Q B d1d2d3d4d5d6...dn CR

Dec. Format [027][081][065] d1d2d3..dn [013]
 [027][081][066] d1d2d3..dn [013]

Hex. Format [1Bh][51h][41h] d1d2d3..dn [0Dh]
 [1Bh][51H][42h] d1d2d3..dn [0Dh] {20h≤dn≤ffh}

Description Set the string display mode, write to upper or lower line d1 d2 d3 . . . dn {1≤n≤20}
“A” stands for the upper line, “B” stands for the lower line. The string display mode will be cancelled and back to last mode after receive CLR or CAN.

ESC Q D d1d2d3d4d5d6.....dn CR / Upper line message scroll continuously

ASCII Format ESC Q D d1d2d3d4d5d6...dn CR

Dec. Format [027][081][068] d1d2d3..dn [013]

Hex. Format [1Bh][51h][44h] d1d2d3..dn [0Dh] {20h≤dn≤ffh}

Description The message (previously defined) will scroll continuously in the horizontal direction until a new command is received.

ESC [D /Move cursor left/

BS /Move cursor left/

ASCII Format ESC [D

Dec. Format [027][091][068]

Hex. Format [1Bh][5Bh][44h]

ASCII Format BS

Dec. Format [008]

Hex. Format [08h]

Description When the current cursor is at the left-end position, this command operates differently depends on the display mode.

1. Overwrite mode: When the cursor reached the left-end of the lower line, it will continue to the right-end of the upper line, overwrite previous characters. When it reached the left end of the upper line, it will continue to the right-end of the lower line.
2. Vertical scroll mode: When the cursor reached the left-end of the lower line, the lower line will scroll up and replace the previous upper line, the lower line will be cleared and the cursor will continue to the right end of the lower line.
3. Horizontal scroll mode: The cursor will remain stationary.

ESC [C /Move cursor right/

HT /Move cursor right/

ASCII Format	ESC [C
Dec. Format	[027][091][067]
Hex. Format	[1Bh][5Bh][43h]
ASCII Format	HT
Dec. Format	[009]
Hex. Format	[09h]
Description	Move the cursor to the right. When the cursor reached the right-end, this command operates differently depending on the display mode.
	<ol style="list-style-type: none"> 1. Overwrite mode: When the cursor reached the right-end of the lower line, it will continue to the left-end of the upper line, overwrite previous characters. When it reached the right-end of the upper line, it will continue to the right-end of the lower line. 2. Vertical scroll mode: When the cursor reached the right-end of the lower line, the lower line will scroll up to replace the upper line, the lower line is cleared and ready to continue characters there after. 3. Horizontal scroll mode: The cursor will remain stationary.
ESC [A	/Move cursor up/
ASCII Format	ESC [A
Dec. Format	[027][091][065]
Hex. Format	[1Bh][5Bh][41h]
Description	Move the cursor up one line. When the cursor is on the upper line, this command operates differently depending on the display mode.
	<ol style="list-style-type: none"> 1. Overwrite mode: The cursor is moved to the same column on the lower line. 2. Vertical scroll mode: The characters display on the upper line are scrolled to the lower line, and the upper line is cleared. The cursor will remain at the same position. 3. Horizontal scroll mode: The cursor will remain stationary.
ESC [B	/Move cursor down/
L F	/Move cursor down/
ASCII Format	ESC [B
Dec. Format	[027][091][066]
Hex. Format	[1Bh][5Bh][42h]
ASCII Format	LF
Dec. Format	[010]
Hex. Format	[0Ah]
Description	Move the cursor down one line. When the cursor reached the lower line, this command operates differently depending on the display mode.
	<ol style="list-style-type: none"> 1. Overwrite mode: The cursor is moved to the same column on the upper line. 2. Vertical scroll mode: The characters display on the lower line are scrolled to the upper line, and the lower line is cleared. The cursor will remain at the same position. 3. Horizontal scroll mode: The cursor will remain stationary.
ESC [H	/Move cursor to home position/
HOM	/Move cursor to home position/
ASCII Format	ESC [H
Dec. Format	[027][091][072]
Hex. Format	[1Bh][5Bh][48h]

ASCII Format	HOM
Dec. Format	[011]
Hex. Format	[0Bh]
Description	The cursor will move to the left-end position of the upper line
ESC [L	/Move cursor to left-most position/
CR	/Move cursor to left-most position/
ASCII Format	ESC [L
Dec. Format	[027][091][076]
Hex. Format	[1Bh][5Bh][4Ch]
ASCII Format	CR
Dec. Format	[013]
Hex. Format	[0Dh]
Description	The cursor will be moved to the left-end position of the current line.
ESC [R	/Move cursor to right-most position/
ASCII Format	ESC [R
Dec. Format	[027][091][082]
Hex. Format	[1Bh][5Bh][52h]
Description	The cursor will be moved to the right-end position of the current line.
ESC [K	/Move cursor to bottom position/
ASCII Format	ESC [K
Dec. Format	[027][091][075]
Hex. Format	[1Bh][5Bh][4Bh]
Description	The cursor will be moved to the right-end position on the lower line.
ESC 1 x y	/Move cursor to specified position/
ASCII Format	ESC 1 x y
Dec. Format	[027][108] x y { 1≤x≤20 , 1≤y≤2 }
Hex. Format	[1Bh][6Ch][x][y]
Description	The cursor will be moved to the x column on the y line.
ESC @	/Initialize display/
ASCII Format	ESC @
Dec. Format	[027][064]
Hex. Format	[1Bh][40h]
Description	The data in the input buffer will be cleared and reset from default.
ESC W s x1x2 y	/Reset the window/
ASCII Format	ESC W s x1 x2 y
Dec. Format	[027][087][000]
	{ 1<=x1<=x2<=20 , 1<=y<=2 }
Hex. Format	[1Bh][57h][000]

[1Bh][57H][01h][x1][x2][y]

Description	Reset the window on the display. When s = 0, window is cancelled (values: x1, x2, and y are not required.)
	When s = 1 the window will be reset (values: x1, x2, and y are required.) The x1 and x2 set the position of the left column and right column, respectively, of the window. The y sets the upper line or the lower line of the window. This function is valid within the horizontal mode.

CLR /Clear display screen, and clear string mode/

ASCII Format CLR

Dec. Format [012]

Hex. Format [0Ch]

Description All the display characters will be cleared, and the string mode will be cancelled.

CAN /Clear current line, and cancel string mode/

ASCII Format CAN

Dec. Format [024]

Hex. Format [18h]

Description The current line is cleared, and the string mode is cancelled.

1.10 Customer Display Mode 20x2 expand command details

ESC i s d1d2d3..dn /set media/

CR

ASCII Format **ESC i s d1d2d3..dn CR**
Dec. Format [027][105][s] **d1d2d3..dn** [013]
Hex. Format [1Bh][69h][s][**d1d2d3..dn**][0dh] {20h≤dn≤ffh} {0<n<400h} {s= 1h, 2h, 11h, 12h}

Description When s and 10h equal 10h save video file path.

When s=1h, clear current play video list and set new d1d2d3..dn video file path.

When s=2h, append current play video list d1d2d3..dn file path

When s= 11h, clear current play video list and set new d1d2d3..dn video file path. at same time .use current video file path save and replace old one

When s= 12h, append current play video list d1d2d3..dn file path, at same time .the current video file save and append old video list

When d1d2d3..dn include more than one file path use “;” separator

ESC j s d1d2d3..dn /set main image/

CR

ASCII Format **ESC j s d1d2d3..dn CR**
Dec. Format [027][106][s] **d1d2d3..dn** [013]
Hex. Format [1Bh][6ah][s][**d1d2d3..dn**][0dh] {20h≤dn≤ffh} {0<n<ffh} {s= 1h, 2h, 11h, 12h}

Description	When s and 10h equal 10h save image file path. When s= 1h, clear current run show image list and set new d1d2d3..dn image file path When s= 2h, append current run show image list d1d2d3..dn image file path When s= 11h, clear current run show image list and set new d1d2d3..dn image file path. at same time .use current image file path save and replace old image file list When s= 12h, append current run show image list d1d2d3..dn image file path, at same time , the current image file path save and append old image file list When d1d2d3..dn include more than one file path use “;” separator
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ESC k n	/media control/
ASCII Format	ESC k n
Dec. Format	[027][107][n]
Hex. Format	[1Bh][6bh][n] {01h=<n <= 06h}
Description	When n= 1h, play media When n= 2h, pause media When n= 3h, paly next media When n= 4h, previous next media When n= 5h, stop media When n= 6h, clear current media play list

ESC m s d1d2d3..dn	/change customer display back ground image/ CR
ASCII Format	ESC m s d1d2d3..dn CR
Dec. Format	[027][109][s] d1d2d3..dn [013]
Hex. Format	[1Bh][6dh][s][d1d2d3..dn][0dh] {20h≤dn≤ffh} {0<n<ffh} {s=1h ,2h,3h,4h,5h,6h, 7h,11h,12h,13h,14h,15h,16h, 17h}
Description	When s and 10h equal 10h save back ground image . When s= 1h, 11h change display line one back ground image, use d1d2d3..dn image file path. When s= 2h, 12h change display line two back ground image, use d1d2d3..dn image file path. When s= 7h, 17h change all display back ground image, use d1d2d3..dn image file path.

if Customer Display Mode with 20x6 , the following effective

When s= 3h,13h change display line three back ground image, use d1d2d3..dn image file path.
When s= 4h,14h change display line four back ground image, use d1d2d3..dn

image file path.

When s= 5h, 15h change display line five back ground image, use d1d2d3..dn image file path.

When s= 6h, 16h change display line six back ground image, use d1d2d3..dn image file path.

When s= 11h,12h,13h...16h , the current image file path save and replace display line x back ground image

ESC o n /set media volume /

ASCII Format

ESC o n

[027][111][n] {0<=n <=100}

Dec. Format

[1Bh][6fh][n] {00h=<n <= 64h}

Hex. Format

n set with media volume

Description